

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-30 (Canceled)

31. (New) A process for manufacturing an article comprising one or more superposed layers each less than 5 centimetres thick, obtained by using a composition comprising a hydraulic binder and at least one compound which is:
an organic compound comprising at least two hydrophilic functions and a hydrophobic chain, or
a polyamide oligomer comprising less than 20 repeating units.

32. (New) The process according to Claim 31 wherein the composition comprises a latex.

33. (New) The process according to Claim 1 or 2, wherein the composition comprises fibres.

34. (New) The process according to claim 31, wherein the composition comprises from 0.05% to 10% by weight of the said organic compound relative to the total weight of hydraulic binder.

35. (New) The process according to Claim 32, wherein the composition comprises from 0.1% to 15% by weight of latex relative to the total weight of hydraulic binder.

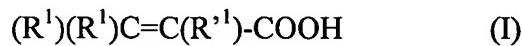
36. (New) The process according to Claim 34, wherein the composition comprises from 0.1% to 10% by weight of fibres relative to the total weight of hydraulic binder.

37. (New) The process according to Claim 31, wherein the hydrophilic functions of the organic compound are functions acid, acid halide or acid anhydride functions.
38. (New) The process according to Claim 31, wherein the organic compound comprises a hydrophobic chain which is an aliphatic, arylaliphatic, aromatic or alkylaromatic chain.
39. (New) The process according to Claim 31, wherein the hydrophobic chain has from 2 to 30 carbon atoms.
40. (New) The process according to Claim 31, wherein the organic compound is succinic acid, sebacic acid, adipic acid, octanedioic acid, decanedioic acid, dodecanoic acid, brassyllic acid, glutaric acid, or a salt thereof.
41. (New) The process according to Claim 40, wherein the organic compound is a mixture of adipic acid, glutaric acid and succinic acid.
42. (New) The process according to Claim 32, wherein the latex is a water-insoluble film-forming polymer prepared from at least one ethylenically unsaturated monomer.
43. (New) The process according to Claim 42, wherein the ethylenically unsaturated monomer is styrene, butadiene, C₁-C₁₂ alkyl acrylic, methacrylic ester, a corresponding acid thereof, or a vinyl ester.
44. (New) The process according to Claim 42, wherein the water-insoluble film-forming polymer is selected from the group consisting of vinyl or acrylate homopolymers, and copolymers of vinyl acetate, of styrene/butadiene, of styrene/acrylate, of acrylic esters and of styrene/butadiene/acrylate.

45. (New) The process according to claim 31, wherein the composition comprises a water-soluble amphiphilic copolymer selected from the group consisting of:

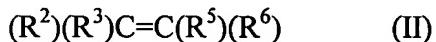
- (i) at least one polymer obtained by polymerization of at least one ethylenically unsaturated monomer (I) of monocarboxylic or polycarboxylic acid type, or a carboxylic acid precursor of cyclic, linear or branched aliphatic or anhydride type, and of at least one monoethylenically unsaturated linear or branched hydrocarbon-based monomer (II),
- (ii) at least one polymer derived from the polymerization of at least one monocarboxylic or polycarboxylic acid monomer (I) or cyclic, linear or branched, ethylenically unsaturated aliphatic anhydride, and comprising at least one saturated or unsaturated C₄-C₃₀ hydrocarbon-based hydrophobic graft, optionally interrupted with one or more hetero atoms, and
- (iii) at least one polymer obtained by chemical modification, for instance esterification, transesterification or amidation, of a precursor polymer on the one hand comprising sites onto which a hydrophobic graft optionally grafted, this hydrophobic graft on the other hand comprising carboxylic acid units or carboxylic acid precursor units.

46. (New) The process according to Claim 45, wherein, in variant (i) the monomer (I) has the following formula:



in which formula the radicals R¹ and R'¹, which are identical or different, represent a hydrogen atom, a C₁-C₁₀ hydrocarbon-based radical optionally comprising a -COOH group, or a -COOH group; and

the monomer of formula (II) has the following formula:



in which formula:

the radical R² represents a hydrogen atom or a linear or branched C₁-C₁₀ alkyl radical optionally substituted with hetero atoms;

the radical R³ represents a linear or branched C₁-C₁₀ alkyl radical optionally substituted with hetero atoms, or a radical -O-R⁴, wherein R⁴ represents a linear or branched C₁-C₁₀ alkyl radical optionally substituted with hetero atoms;

the radical R⁵ represents a hydrogen atom or a linear or branched C₁-C₁₀ alkyl radical optionally substituted with hetero atoms; and

-the radical R⁶ represents a hydrogen atom or a linear or branched C₁-C₁₀ alkyl radical optionally substituted with hetero atoms;

with the proviso that at least one of the radicals R², R³, R⁵ or R⁶ represents a linear or branched C₁-C₁₀ alkyl radical optionally substituted with hetero atoms.

47. (New) The process according to Claim 46, wherein the monomer of formula (I) is such that:

one of the radicals R¹ is a hydrogen atom;

the other radical R¹ represents a hydrogen atom, a -COOH group or a group -(CH₂)_n-COOH in which n is between 1 and 4, or a C₁-C₄ alkyl radical; and

R¹ represents a hydrogen atom, a group -(CH₂)_m-COOH in which m is between 1 and 4, or a C₁-C₄ alkyl radical.

48. (New) The process according to Claim 47, wherein the monomer of formula (I) is such that:

one of the radicals R¹ represents a hydrogen atom,
the other radical R¹ represents a hydrogen atom, a -COOH or (CH₂)-COOH group or a methyl radical, and

R¹ represents a hydrogen atom, a -CH₂COOH group or a methyl radical.

49. (New) The process according to Claim 48, wherein the monomer of formula (I) is acrylic, methacrylic, citraconic, maleic, fumaric, itaconic, crotonic acid or an anhydride thereof.

50. (New) The process according to Claim 49, wherein the monomer of formula (I) is maleic anhydride.

51. (New) The process according to Claim 46, wherein the monomer of formula (II) is ethylene, propylene, 1-butene, isobutylene, n-1-pentene, 2-methyl-1-butene, n-1-hexene, 2-methyl-1-pentene, 4-methyl-1-pentene, 2-ethyl-1-butene, diisobutylene (or 2,4,4-trimethyl-1-pentene), 2-methyl-3,3-dimethyl-1-pentene, isobutyl vinyl ether, methyl vinyl ether, 1-menthyl vinyl ether, phenyl vinyl ether or octadecyl vinyl ether.

52. (New) The process according to Claims 46, wherein the copolymer of formula (i) is derived from the polymerization of maleic anhydride and isobutylene.

53. (New) The process according to Claim 45, wherein the composition comprises from 0.1% to 5% by weight of water-soluble amphiphilic copolymer relative to the total weight of hydraulic binder.

54. (New) The process according to Claim 33, wherein the fibres are selected from the group consisting of glass fibres, carbon fibres, steel fibres, polyamide fibres, polyester fibres, poly(vinyl alcohol) fibres, polypropylene fibres and poly(acrylonitrile) fibres.

55. (New) The process according to Claim 31, wherein said hydraulic binder is based on at least one compound selected from the group consisting of calcium silicate, calcium sulphate and calcium phosphate.

56. (New) A composition for manufacturing an article comprising one or more superposed layers each less than 5 centimetres thick, comprising a hydraulic binder and at least one compound which is:
an organic compound comprising at least two hydrophilic functions and a hydrophobic chain, or
a polyamide oligomer comprising less than 20 repeating units.

57. (New) The composition according to Claim 56, wherein it also comprises at least one compound selected from the group consisting of a latex, a water-soluble amphiphilic copolymer and fibres.

58. (New) An article comprising one or more superposed layers each less than 5 centimetres thick, obtained from the composition according to Claim 56.

Docket Number: RN02097
Preliminary Amendment
PCT application date: July 10, 2003

59. (New) An article of manufacture comprising one or more superposed layers each less than 5 centimetres thick, made from a composition as defined in claim 56.
60. (New) The article of manufacture according to Claim 59 being a coating, a covering a grout or a fibrocement.